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Guest Editorial
Computational mathematical modelling for industry

A summary of the workshop held from the 9th to the 13th of November, 1992, at the Gardens Point campus of Queensland University of Technology, Brisbane.

The inaugural Computational Mathematical Modelling for Industry workshop was organized jointly by the School of Mathematics at Queensland University of Technology and the Department of Mathematics at The University of Queensland. Sponsorship assistance was provided by Silicon Graphics, Sun Microsystems, CRA, and HIsmelt. Participants came from universities, research organizations, and industry with many of them having an engineering background. The focus of the workshop was on solutions to industrial problems.
The aims of the workshop were to:

- demonstrate the benefits of using computational mathematical modelling to solve industrial problems
- introduce industry to the applicable mathematics groups of the organizing universities and to make industry aware of their expertise, interests, and willingness to foster mutually beneficial links
- increase the awareness of relevant industrial problems within the applicable mathematics groups of the participating universities
- develop links between people from a variety of organizations who use mathematical modelling
- provide a forum for mathematical modellers to meet and exchange ideas.

The keynote speakers were Professor Mark Cross from the University of Greenwich (UK) and Professor James Hill from the University of Wollongong. There were 25 talks given by 27 invited presenters. The talks presented solutions to problems from a range of areas in applicable mathematics, including metal casting, industrial heating and drying, mineral leaching, pollution control, engine modelling, drought control, laying pavers, medical physics, vehicle dispatching, port expansion, and container transfer. Some talks included presentations of software together with associated computing environments. The need for interdisciplinary links, in particular between mathematicians, computer scientists, and engineers, was evident from many of the talks. The presentations were of high quality and were well received.

In this issue, nine of the papers presented at the workshop have been written up and passed through the conventional peer review process of *Applied Mathematical Modelling*; they give some idea of the spread of activities discussed at the workshop.

Obviously, increasing the links between applied mathematicians, engineers, and industry has to be a worthwhile objective and, with its significant representation from industry, this workshop has made a contribution to this in Australia. As such, further workshops are planned. Abstracts from the workshop may be obtained by contacting Dr. Ian Turner of the School of Mathematics, Queensland University of Technology, GPO Box 2434, Brisbane, Qld 4001, Australia or by email at i.turner@qut.edu.au.

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